

PUBLIC HEALTH MANAGEMENT IN CHITTOOR IN MADRAS PRESIDENCY

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ABSTRACT

A town is a place for every citizen to work and reside-in. Of all the amenities, good health of its inhabitants is most essential for the healthy development of any town. The healthy environment of the town is not satisfactory in pre-1917 period. Council tried its best to maintain the healthy environment. Maternity and Child Welfare Centers played vital role in meeting the needs of the town. It took firm action in dealing with epidemics. Compulsory vaccination, taking firm steps in dealing with Food Adulteration are some of the effective step taken by the municipality. I made an effort to study the various aspects of Health Management council in this paper.

I consulted Municipal records. Government letters, Government orders, Revenue Disposals Council Resolutions in addition to published works on madras presidency.

KEYWORDS: 1. Health Environment 2. Welfare Centre 3. Vaccination 4. Food Adulteration 5. Rewards

INTRODUCTION

"Health is Wealth"

A town is a place for every citizen to work and reside-in. Of all the amenities, good health of its inhabitants is most essential for the healthy development of a town. So, one of the main functions of the local authorities is to maintain public health. When Chittoor municipality was constituted in 1917, the up-keepment of public health in the town was far from satisfactory. Epidemics visited the town often caused havoc due to the insanitary conditions. Prior to becoming a municipality, Chittoor was under the control of Local Fund Board of Chittoor. Local Fund Board maintained one hospital. It continued to fund and maintain the hospital even after the inception of the municipality. The Chittoor municipality, at first, appointed health staff to assist the district hospital in its health work and took effective steps for the up keepment of public health. In spite of its precarious financial position, the municipality never ignored to take adequate measures to prevent the outbreak of epidemics and tried to control them, whenever they occurred. It also maintained a register of births and deaths and tried to protect people against the small-pox and other epidemics by compulsory vaccination and inoculation and arranging various public shows to create awareness among the people.¹

Hospital

Medical relief was voluntary in pre-1870 period. But, the voluntary system was a failure. So, in 1871, when the Town Improvement Act and the Local Fund Act were enacted, the provision of medical relief devolved on the local authorities² But, the slender finances of the local authorities did not permit them to make adequate provision for such relief. Further, the medical institutions under their management were administratively controlled by the District Medical Officer. The municipality simply had to provide funds for medical institutions without any control over them. As far as the District Boards were concerned, the Government in 1916 suggested to establish mobile dispensaries and to increase the staff of some of the hospitals and dispensaries. The Government promised to meet the entire expenditure of these measures from Provincial Funds. But, this offer was not accepted by the District Boards for the simple reason that they had no control over

the staff of these institutions.³

Under the reforms of 1919, the Medical and public Health services were provincialised and brought under the control of Director of Public Health. In 1920, the Government appointed a body called the Financial Relations Committee to suggest measures to augment financial resources of the local bodies for improving medical care. The committee made a number of recommendations in this regard. The Government in principle accepted the recommendations, but could not implement them due to financial stringency. In 1924, Government offered subsidies to private practitioners to settle down in rural areas. In 1928, all the Taluq – head quarters hospitals maintained by the local authorities were taken over by the Government to provide efficient medical aid in rural areas. In spite of these measures, the situation did not change for the better even after fifteen years.⁴

In 1943, the Government of India appointed the Health Survey and Development Committee, under the chairmanship of Bhole to make a survey of the existing health conditions in the country. The Committee made a number of suggestions for the improvement of the Health Services in the country.⁵ One of its important recommendations was that the Department of Public Health and Medicine should be amalgamated and brought under the administrative control of one director⁶

Post – Independence

Twelve years after the country had attained independence, the Government of India in 1959 appointed a Committee to assess and estimate the progress made in medical relief and public health since independence and also to suggest measures to improve the situation. The committee made a number of recommendations relating to the problem of medical relief and public health in rural and urban areas, environment hygiene, control of communicable diseases and professional education and research.⁷

Medical Facilities

There was one Government Head-quarters Hospital with 198 beds maintained by the Government in Chittoor town and it used to cater to the medical needs of the public in the town. A very popular hospital with great reputation is located at Vellore known as CMC Hospital and complicated cases were usually taken to this hospital. As Vellore was very near to Chittoor, some people visited CMC Hospital.⁸

Unani Dispensary

The medical needs of rich and middle classes were looked after by some private practitioners. The Municipality did not find it necessary to open any other hospital or dispensary since the Government Head-quarters hospital by and large catered to the needs of the poorer sections of the town. The Municipality paid a contribution of Rs.250/- towards the supply of Unani medicines to Dr. Hakim Fazulla Rahman Saheb, a local Registered Medical Practitioner of Unani System and his dispensary was located in the center of the town and was very popular.⁹

Maternity and Child Welfare

Towards the closing decades of the 19th century, attempts were made to provide medical care to women and children. In 1885, a committee called 'Dufferin Fund Committee' named after the Viceroy, Lord Dufferin, was formed for this purpose. But nothing came out of this. It was only in 1918, a medical school was established for the training of health visitors. Next year in 1919, the Lady Chelmsford established All India League for Maternity and Child Welfare to co-ordinate the work in this field throughout the country. The next step in this regard was the formation of the Maternity and Child Welfare Bureau under the auspices of the Indian Red-cross society. This was followed by the opening of a new

Diploma Course in Maternity and Child Welfare in the All-India Institute of Hygiene and public health, Calcutta.¹⁰ In 1953, the Government of India established Maternity and Child welfare training centre at the All-India Institute of Hygiene and Public Health with the assistance of UNICEF.¹¹

As far as Madras presidency was concerned, the Government as early as in 1887 suggested the local authorities to depute qualified women to be trained as nurses. In 1894, the Surgeon – General to the Government of Madras prepared a scheme for giving proper training to midwives by the local authorities. But nothing came out of this proposal too. Even by 1920, one-third of the midwives employed by the local authorities were untrained.¹² So in the same year, Financial Relation Committee suggested to the Government to establish training centers in five places to train mid-wives. In 1929, the Maternity and Child Welfare division of the Indian Red-cross Society started a school for the training of health visitors. But it could not function well due to financial difficulties. In 1938, the school was handed over to the Government.¹³

Maternity and Child Welfare Centre

There was no Maternity and Child Welfare centre till 1944; but, the municipality employed one mid-wife in 1927.¹⁴ The Chittoor Municipality conducted baby shows from 1930 onwards to bring awareness among public about the Healthy Child concept. But, a real attempt was made only after 1940 to organize child centers.¹⁵ Municipality increased the strength of midwives from one to two in 1945.¹⁶ The Municipality constituted Maternity and Child Welfare Centre in 1944.¹⁷ In 1958, the number was increased to 3¹⁸ The above centers were maintained with the following staff.

1.	Woman Medical officer	...	1
2.	Maternity Assistants	...	5
3.	Mid-wives	...	2
4.	Ayahs	...	3

By 1969-1970, the number of maternity and Child Welfare centers was increased to four.¹⁹

The location and other details of the centers are as follows:

Table 1

S. No.	Centre	Maternity Assts.	Ayahs	Beds
1.	Main centre Devaraya Reddy Street	2	3	4
2.	Santhpet Centre	1	1	1
3.	Greams pet Centre	1	1	1
4.	Mittoor Centre	1	1	1

Except the maternity and child welfare centre at Mittoor, all other centers continued to be located in rented buildings. The main centre was in the heart of the town. The entire Maternity and child welfare staff was under the control and supervision of the woman Medical Officer. The post was filled-up by a fully qualified candidate with M.B.B.S. degree on 29-1-69 which was vacant for want of a qualified person.

The entire municipal area was divided into 4 circles and each was allotted to one Maternity Assistant who could easily go round the circle once in a week. Delivery cases were attended by the five Maternity Assistants. There were twenty nine other qualified Midwives available in the town in addition to the Midwives of the Municipality. On an average each Municipal Maternity Assistant conducted 15 labour cases per mensem which exceeds the target of 12 cases per month prescribed per Maternity Assistant.²⁰ The comparative statement of activities of all the centers for the years 1965-66 to 1969-70 is given below.²¹

Table 2

Year	Labour Cases Attended		Total	Nursing Mothers	Infant Care	Mother Classes	Home Visits
	Maternity cases	Conducted Domiciliary					
1965-66	177	445	622	337	9	459	6942
1966-67	277	560	837	577	8	341	3433
1967-68	269	651	920	385	74	--	8266
1968-69	289	560	849	280	40	--	7086
1969-70	462	453	915	--	--	1386	7164

In the functioning of Maternity and child welfare centers the woman Medical Officer, Mid-wives and Maternity Assistants played a vital role. They made systematic visit to the houses to note the cases of pregnancy and followed them till the completion of the delivery and post-natal period. The woman Medical Officer supervised the work of the Mid-wives and Maternity Assistants and personally attended on critical cases. The centers had labour wards for emergency cases.²²

Registration of Births and Deaths

The registration of births started in Madras presidency in 1855.²³ Based on the recommendations of Royal Commission in 1863, arrangements were made to register births as well as deaths. The registration of deaths, with the help of the Revenue Department, was carried throughout the Madras presidency from 1856-57.²⁴ Till, 1890, the local authorities did not undertake the registration of vital statistics.

The responsibility of collection and maintenance of vital statistics was allotted to municipalities by the Town Improvement Act of 1871. By the Madras District Municipalities Act of 1884, registration of births and deaths was made compulsory in Municipal areas, and in rural areas under the registration of Births and Deaths Act of 1899. However, the registration of births and deaths was not done properly in rural areas and in the municipal areas too.²⁵ It was a great ordeal for the Government to make proper arrangements to record vital statistics systematically. Chittoor Municipality took keen interest in recording vital statistics of the town from its very inception in 1917.²⁶ In 1918-19, total births and deaths registered during the year were 537 and 814 respectively as against 455 and 707 in the previous year²⁷ where as in 1927-28, there were 321 births and 759 deaths.²⁸

The births were very low compared with deaths as the public health of the town was not good due to the prevalence of epidemics like Cholera, Malaria, Influenza. But, in later years municipality shown marked improvement in public health resulting in fewer number of deaths.²⁹ Thus, the decrease in death rate shows the general improvement of public health.

Table 3

Year	Births	Deaths
1917	455	707
1918	527	864
1927	321	759
1931	500	400
1932	475	425
1933	490	390
1941	1070	735
1942	1029	651
1943	1023	925

Source : Ad.R. of Chittoor Municipality, 1917-1918 To 1942-43

The above table shows deaths were more than births in the first two decades of the twentieth century, where as in the third and fourth decades births are more than deaths.

The population of Chittoor Municipality was 22, 018 as per census of 1931 in area of 7½ kms. The population in 1941, as per census was 27,835.³³ The birth rate, in 1941 was 46.3 as compared to 55.8 of the previous year³¹

Table 4

Year	Births	Birth Rate [Per]
1941	1070	48.6
1942	1229	55.8
1943	1023	46.3

Table 5

Year	Death	Death Rate
1941	735	33.6
1942	651	29.6
1943	925	42.0

Source: Ad. R. of Chittoor Municipality 1941-42, 1942-43

The increase in death rate in 1943 was due to infectious diseases.³²

Still Births

There were 77 still births during the year 1940-41. This is about 7.0 per cent of the total number of labour cases. A comparative statement is furnished below.³³

Table 6

Year	Still Births	Percentage of Total Labour Cases
1941	91	7.7
1942	104	8.4
1943	77	7.0

Source: Ad.R. of Chittoor Municipality 1940-41 to 1942-43

The birth rate showed gradual increase from 1945 onwards.³⁴ It is remarkable that in 1945-46 it was 1075 as against 1002 in 1944-45.³⁵ The total number of births registered during 1952 was 1000 as against 909 of the previous year, deaths declined to 555 in 1952 as against 600 in the previous year. The decrease in the death rate was a consequence of improved public health during the said years.³⁶

The Chittoor town was divided into three zones for the registration of births and one Health Assistant was kept incharge of Registration of births The total number of births registered during the year was 2690 and Birth rate per mile of population was 51.4 or 5.14% on the basis of 1961 census. In G.O.Ms. No.375. H.A. dated 26.4.1960, Government while reviewing the Administrative Report of the previous year observed that the birth rate for the year worked out to be 58% was on the high side. But the correct figure was 5.8% or 58 per mile but not 58% and not on the high side. Obviously 58% was a clerical error for 58 per mile.³⁷ The Municipality kept one statistical clerk in charge of collection of vital statistics. He worked in the Municipal office under the control of the Secretary. Every effort was made to register all births and deaths occurring in the Municipality by house to house enquiry.

The Health Assistants visited the wards daily in the morning hours to detect births and deaths. The record of births and deaths was not hundred per cent in the earlier years of its inception due to the public apathy. But gradually, the situation improved satisfactorily due to the steps taken by the Municipality in that direction. The Municipality even launched prosecutions against some offenders. This resulted in improving the situation and public awareness was created in reporting births and deaths. By 1970, most of the people in the town began reporting the occurrence of births and deaths voluntarily to the authorities concerned.³⁸

Maternity Mortality

Chittoor being the head-quarters of the district and having the well equipped district head quarter hospital, people in and around the municipal area too availed the facilities at Chittoor and so the births and deaths began to be recorded in the Municipal records.³⁹

In 1942, the number of deaths under maternity mortality was twenty one as against thirty three in the previous year. In 1960-61, the number of deaths under maternity mortality was thirteen as against nineteen in the previous year.⁴⁰ This decrease in death rate under maternity mortality was due to efficacy of maternity centers.⁴¹

Infantile Mortality

In 1943, the case of infantile mortality was as high as 108, infantile mortality per mile of births was 116.6 and percentage of infantile deaths to total deaths was 11.6. The following table shows the infantile mortality and death rate.⁴²

Infantile Mortality rate of the different age groups below one year:

Table 7

	Deaths	Death Rate per Mile of Births
Under one Month	51	55.1
One month & under 6 months	29	30.8
Six months & under one year	28	30.7
	108	116.6

Source: Ad.R. of Chittoor Municipality 1943-44.

Family Planning

From 1967 onwards, the propagation of family planning became one of the main activities of these centers. The Health Assistants and mid-wives took active role in the campaign and induced many mothers to undergo sterilization. The Woman Medical Officer, appointed in 1969, intensified the campaign. Public shows were arranged by the centers to educate the people. Contraceptives were distributed free of cost. It is said that, 600 mothers were advised to undergo sterilization.⁴³ UNICEF also provided free distribution of medicines and milk to the needy, through these centers.⁴⁴

Accommodation

The Municipality maintained four Health Centers : 1. Main centre Devaraya Reddy Centre 2. Santhapet Centre 3. Greampet Centre and 4. Mittoor Centre. Except the Mittoor Centre, all other centers continued to be located in rented buildings. The Main centre was located in the heart of the town. No further action was taken to acquire new permanent buildings for other centers⁴⁵

Staff

The Municipality employed one midwife in 1927⁴⁶ and increased the strength of midwives to 2 in 1945.⁴⁷ The Municipality constituted one maternity centre in 1944⁴⁸ and this number increased to 4 by 1958.⁴⁹ Gradually, the strength of the staff of the centre increased to one Woman Medical Officer, 5 Maternity Assistants, two Mid-wives and four Ayahs.⁵⁰ The number of Ayahs increased to six by 1969.⁵¹

Supervision

District Health Officer inspected the centre in 1944 and Director of Public Health visited the centre in October, 1965 and pointed out certain defects. The defects pointed out in the reports after inspection were rectified.⁵²

Finance

The maternity centers were maintained from the General Funds of the Municipality. The total expenditure included salaries and allowances of the staff and house rents of Maternity and child welfare centers. No amount of grant was received from the Government.⁵³

Diseases

In Madras presidency, the control and treatment of the contagious diseases and epidemics did not receive proper attention. As a result, measures to prevent the outbreak of epidemics were very few and scanty. It was only after the outbreak of an epidemic, steps were taken to control it. The steps to control and cure the epidemics depended on their nature and character. Prior to 1920, no measures were taken to prevent the epidemics. Poverty of the people and lack of medical aid were responsible for the frequent outbreak of the epidemics.⁵⁴

In 1943, a committee appointed under the chairmanship of Dr. Bhoke by the Government of India to study the problem and suggest remedies. The committee made several recommendations and suggestions to tackle the problems relating to the outbreak of epidemics like cholera, plague, small-pox etc., and contagious diseases like tuberculosis. It suggested measures to be taken by the local authorities to prevent the spread of epidemics. However, it was only after the attainment of country's independence in 1947, several enactments were made regarding the control of epidemics and many Medical institutions were established to tackle diseases and epidemics. The Constitution of India has several provisions relating to public health.⁵⁶

Chittoor being head-quarters, many people from nook and corner of the district visited Chittoor town for various purposes. Many pilgrims from the bordering neighbor states - Tamil Nadu and Karnataka on the way to Tirupati - a famous pilgrim centre, had passed through the town of Chittoor; this floating population became a health hazard to the local citizens. Outbreak of epidemics like cholera and small-pox became endemic. The Municipality in spite of its limited financial resources, tried its best to contain the problem to the best of its abilities.⁵⁶

Cholera

The first recorded outbreak of cholera in the Madras presidency took place in the year 1868-69. In 1868, it broke-out in Hyderabad from there it spread to Kurnool, Cuddapah and Bellary in June, 1869.⁵⁷

The citizens of Chittoor celebrated the following festivals every year. People from every corner of the district visited the town and participated in the festivals.

- Brahmotsavam Festival of Ramaswami Temple.
- Gangamma Jathara.
- Sri Subramanyaswami Adikrithigal Festival.
- Sri Ankalaprameswari Brahmotsavam and
- Sri Krishna Jyothi Utsavam.

People of Chittoor celebrated Vanamahotsvams in Kartika Masa (November). The above celebrations usually became the cradle of epidemics.⁵⁵

The outbreak and spread of cholera was due to various reasons explained above. After the formation of Municipality, the most severe outbreak of cholera occurred during 1918-19. It raged for 40 days and resulted in the death

of 83 people.⁵⁹ The next year also saw the outbreak of the epidemic which continued for several weeks. About 50 people were attacked by the epidemic and of them 35 persons died.⁶⁰ The next serious outbreak took place in 1924, at the time of local festivals. It resulted in 52 deaths.⁶¹ Municipality took several steps and deaths due to cholera were reduced by the year 1927-28.⁶²

Municipality, maintained a Register of cholera patients. This register helped the Health staff to keep vigil on cholera prone areas and took effective steps to combat it. Public Health Staff of the Municipality took preventive measures such as segregation, disinfection and preventive inoculation. The above measures improved the health situation in the town. So, no cases of cholera reported during the years 1930-35.⁶³

But in 1936, cholera broke out again and claimed the lives of 50 persons. The Municipality came to know that most of the dead were residents of surrounding villages. They were admitted into the hospital only after they were attacked by the epidemic in their own places and turned critical.⁶⁴ The Municipality took prompt measures to wipeout the epidemic. A temporary zinc shed with accommodation of 6 beds and another with thatched roof with accommodation of 4 beds were specially erected during the duration of the epidemic in addition to the permanent sheds already in existence. Petromox lights were provided in all the sheds for the convenience of the cases admitted in the nights.

The Municipality delegated one cholera inspector and 'thoti' even to District hospital to identify the cases and took prompt measures to tackle the situation. Mass inoculation against cholera was carried out on large scale making a total of 980 inoculations for the year.⁶⁵

The Municipal area was free from incidence of cholera for 5 years, from 1938 to 42. The Municipality from 1940, tried to eradicate epidemic by making anti-cholera inoculations compulsory. Nearly 18,000 people were inoculated in 1940. On account of these precautionary measures, there was substantial decrease in the incidence of cholera. In fact, no case of cholera attack was reported during 1940-41 and 1941-42. But, in 1943, 358 cholera affected people were admitted and 255 people were succumbed to it.

Municipal authorities made an enquiry and reported to the council that all the patients were from rural areas and were admitted to the hospital after they were attacked by the epidemic. The council also dispatched the report to Director of Public Health.⁶⁶ There were 5 cholera attacks during the years 1948-49 and 1949-50. While the number of attacks was only 20 in 1946-47. No new cases were reported in the year 1950-51.⁶⁷

Municipal health authorities delegated three Health Assistants to assist hospital authorities and one cholera inspector was instructed to identify the cases and took preventive measures. This improved health situation. In fact no single case of attack was reported during the years 1950-60.⁶⁸ After a lull of fourteen years a mild outbreak of cholera occurred in the town in 1964. Of the 20 suspected cases only 8 proved positive of these only one from municipal area and other seven were from outside.

One case proved to be fatal. Immediate steps were taken to prevent the spread of epidemic and nearly 20,000 persons were inoculated.⁶⁹ No cholera attacks were reported until 1969-70. Director of Public Health appreciated the work of Public Health Department of the Municipality in eradicating cholera from the town.⁷⁰

The Wells and tanks in the infected wards as well as running-water supply of the town were chlorinated throughout the duration of the epidemic.⁷¹

Staff

In 1943, additional staff consisting of one cholera inspector and 2 Health Assistants were recruited to cope with

the work. The Director of Public Health deputed Health Inspectors, every year to assist the Municipality to carryout its anti-cholera programmer.

B. Gastro-Enteritis

Another epidemic which claimed as many as 22 lives was Gastro-enteritis which broke-out during the year 1962-63. All Gastro-enteritis cases were from the residents of surrounding villages. Municipality took immediate measures to arrest the spread of the epidemic by chlorinating public wells, and inoculating the persons in the affected areas. The Municipality recruited temporary staff for this work for a period of 90 days.⁷²

C. Small-pox

Small-pox was one of the three major epidemics in India, the other two being cholera and plague. It is a terrible disease characterized by small-pocks or eruptions on the skin. This infectious disease was more virulent in form. People living in slum areas did not notify the authorities the cases of small-pox as soon as it broke-out in their localities. For, they did not like the patients removed to isolation wards, due to ignorance and misplaced sympathy for the patients. The disease is now totally eradicated from the country indeed. But, during 19th century and the early decades of 20th century, it used to erupt frequently in different parts of the country. Most of the victims succumbed to the disease. Those who escaped death became either blind or disfigured. So, the Government of India launched a countrywide National Small-pox Eradication Programme (NSEP) and finally succeeded in eradicating the dreaded disease from the country once for all.⁷³

In 1918, there were twenty cases of small-pox. Eleven persons succumbed to this disease.⁷⁴ The number of victims came down substantially by 1924-25 due to various measures adopted by the municipality in the previous years.⁷⁵ But, 56 cases were reported out of which four died. in 1927-28. The council immediately adopted various measures to check the spread of this disease.⁷⁶ These measures slowed-down the seriousness of the disease in later years.

From 1930 onwards, there was marked decrease of incidence of small-pox till 1936. There were attacks but not fatal.⁷⁷ In the following year, the epidemic broke-out again resulting in the death of two persons. The municipal administration took preventive measures like intensive vaccinating of children. Thus, vaccination was under taken on a large scale.⁷⁸ Five cases of small-pox were noted in the Chittoor town in 1942.⁷⁹ After that for nearly a decade no new cases were detected. But, during the years 1951 to 1956, the disease broke-out sporadically and claimed two lives in 1956. The town was brought-under Sec.76 of the Public Health Act and intensive vaccination campaign was launched. The suspected cases were isolated. The District unit of NSEP (National Small-pox Eradication Programme) of Chittoor, assisted the staff of the Municipality to eradicate the epidemic.⁸⁰

It was only in 1967, the disease was eradicated completely. The following table illustrates the deaths due to small pox.

Table 8

Disease	Years					
	1964	1965	1966	1967	1968	1969
Small-Pox	16	2	2	Nil	Nil	Nil

Source: Ad.R. of Chittoor Municipality 1964-65 to 1968-69

Preventive Measures

The Municipality appointed additional staff, on temporary basis, to contain the epidemic. Timely vaccination and distribution of carbolised Vaseline for external application by the persons in the areas prone for the out break were taken up. Special staff were appointed to disinfect the soiled clothes of the patients.⁸¹ Steps were taken to educate the public

about the rigour of the disease through cinema slides and pamphlets. These measures were in addition to vaccination of all the persons in endemic areas appreciably reduced the out-break of this epidemic.

D. Chicken-pox

Though chicken-pox is not a dreaded epidemic like small-pox, the municipality took preventive measures like vaccinating the people especially children. Lectures were given by the public health staff to educate public on preventive measures to be adopted against the out-break of chicken-pox. The NCEP (National Chicken-Pox Eradication Programme) was also collaborated with municipal authorities in eradicating this epidemic.⁸²

Malaria

Malaria was an acute problem which was prevalent in most parts of the country. It is a fever caused by the protozoan parasites, carried by a certain species of mosquito. It was only during the last decades of the 19th century, attempts were made to contain the epidemic. During the early years of the 20th century, attempts were made to eradicate the disease completely.⁸³ But, it is after the formation of the Malaria survey of India (M.S.I) in 1927, systematic and organized attempts were made to control the disease and a considerable measure of success was achieved.⁸⁴ After the attainment of independence, the Government of India, launched in 1953, a three year National Malaria Control Programme at a cost of Rs.20/- crores.⁸⁵ In 1958, the National Malaria Eradication Programme (NMEP) was launched to wipe out the disease throughout the country by spraying D.D.T in the mosquito breeding areas.⁸⁶

Chittoor Municipal area was not considered to be malaria infected place, no death due to Malaria was recorded in Chittoor Municipal area during the period of this study. But, the Municipality took steps to improve the drainage system of the town, since the disease was spread by Mosquitoes. In spite of the improvements made, there were still many areas in the town which were not free from the Mosquitoes.⁸⁷

The Anti-larval measures were continued to be carried in the mosquito breeding areas. In 1969, the staff consisted one Field Assistant and 8 Mazdoors. The Staff worked under the direct supervision of the Selection Grade Sanitary Inspector. The town was divided into 6 circles for M.L. Oil operations. On Sundays, the staff carried-out canalization work and preparation of oil balls.

The main work of the staff was to carryout mopping operations with M.L. Oil and locating the breeding places. An amount of Rs.16,724/- was spent towards carrying out anti-larval measures during the year. No grant-in-aid or subsidy was sanctioned by the Government during the year 1969. Assistant Malaria Officer conducted detailed survey of the town and asked Municipal administration to adopt the following measures to reduce Mosquito menace.

- Putting of oil balls in frequent intervals in water stagnations such as ponds.
- Spraying of drains with M.L. Oil.
- Supplying of Gambhunisha fish to private wells as an anti-mosquito measure.

The municipal administration followed the above suggestions and the Mosquito menace was mitigated to a large extent.⁸⁸

Plague

Plague is a fever caused by a Bacillus transmitted by rat which flies from rats to humans. In August 1898, the outbreak of plague was first noticed in Madras presidency. It was believed to have spread from 'Bangalore'. By January

1899, four districts of Madras Presidency were infected by this disease. When the disease broke out in the presidency, it was found that both the people and the administration did not have any experience to deal with. As a result, the outbreak of plague caused much hardship to the people.⁸⁹

Plague Attacks in Chittoor

Plague was not a much dreaded disease in Chittoor municipal area since its inception. In 1918 only two cases were reported.⁹⁰ In 1920, two cases proved fatal.⁹¹ In 1924-25, there was not a single case of plague.⁹² Incidence of plague was nil during the succeeding years due to various precautionary measures adopted by the Municipality.⁹³ No plague case was ever reported by the Health Department until 1970. The Director of Public Health, Government of Andhra Pradesh, appreciated Municipal administration, in October 1969, in tackling this dreaded disease very successfully.⁹⁴

Preventive Measures

To check the outbreak of plague, the plague staff visited every house daily and residents were induced to keep their premises clean and also the private cess-pools. Municipal administration appointed special staff for rat-catching operations and disinfect drains. With these steps, a large number of rats in the town were killed. These pre-cautionary measures adopted by the Municipality yielded good results. No plague case was reported until 1971.⁹⁵

Other Epidemics

Apart from these epidemics, other diseases like Dysentery, Typhoid, Filariasis, Influenza, Rabies and Respiratory Diseases used to ravage the town from time to time. To combat these diseases, necessary steps were taken by the Municipality. The council destroyed stray and mad dogs. Municipality organized health weeks, baby shows and arranged lantern lecture. Health staff and teachers working in municipal schools visited houses during public holidays and educated the people about hygiene and cleanliness. These steps taken by the Municipality yielded good results.⁹⁶

Vaccination

Vaccination is one of the chief measures adopted by the Municipality to check the spread of epidemics. It is the most important public health service. Eradication of small-pox is made possible by vaccination. However, the degree of protection conferred by vaccination depends upon the quality of vaccine and the thoroughness with which it is administered.

Three factors are necessary to achieve good results from vaccination. First, Municipality must be given power to make its citizens to undergo compulsory vaccination. The second is the supply of good lymph and the third factor is the availability of trained personnel to give vaccination.

Vaccine was first brought into the presidency in 1802 and was stored in a depot.⁹⁷ But, vaccination was not made compulsory for a long time. Various methods were adopted to induce the people to get themselves vaccinated, such as the payment of anna or two and rewarding the vaccinators who had done commendable work. But all these methods did not produce desired results.⁹⁸ In 1875, Department of Vaccination was merged with the Department of Sanitation.⁹⁹

In 1877, the Sanitary Commission recommended to the Government that the local authorities might be empowered to make vaccination compulsory for all infants of above three months.¹⁰⁰ In 1885 vaccination was made compulsory throughout Madras Presidency.¹⁰¹ In 1924, vaccination was made less painful by the use of glycerin lymph.¹⁰² In 1931, re-vaccination was made compulsory throughout the presidency except the city of Madras.¹⁰³ Another noteworthy feature of the year was the appointment of women vaccinators by some Municipalities to facilitate

vaccination among the communities observing pardah.¹⁰⁴

The number of cases vaccinated during 1917-18 was 352. This lowest number was due to the establishment of Municipality in April and those who were not vaccinated before the establishment of the municipality were alone vaccinated.¹⁰⁵ 740 people were vaccinated during the years 1927-28 as against 645 in the previous year. This increase was due to the appointment of additional vaccinator to assist the permanent vaccinator of the Municipality.¹⁰⁶

Municipality, since its inception, took active interest in vaccinating children. In 1928, an additional vaccinator was appointed to visit each house in the town to vaccinate children.¹⁰⁷ Vaccination is of three kinds:

Primary Vaccination: (PVS) Primary vaccination is the vaccination of a person never previously vaccinated and who has not suffered from small-pox.

Secondary Vaccination: (SVS) Secondary vaccination is the vaccination of a person who failed to take the first time.

Re-Vaccination: (RVS) Re-vaccination is the vaccination of a person already successfully vaccinated or who had a previous attack of small-pox.¹⁰⁸

In 1932-33, the vaccinator conducted 830 vaccine operations. The number gradually increased to 950 in 1943-44. The following table illustrates the number of PVS and RVS :

Table 9

Year	No. of Vaccination	
	PVS	RVS
1932-33	830	1020
1943-44	950	1000

Source: Ad.R. of Chittoor Municipality 1932-33 and 1943-44

The Health Department maintained a Lymph register.¹⁰⁹

In 1966, additional vaccinators were appointed on temporary basis to assist the permanent vaccinator of the Municipality.¹¹⁰ All vaccinations conducted were verified. In 1969-70, total number of vaccinations were P.V.S. 3922 and R.V.S 2739 as against 3742 PVS and 5112 RVS during the previous year.¹¹¹

Staff

Vaccination work was done by para-medical staff of the Municipality and other staff of the public health of the municipality. Maternity and child welfare centres played a vital role in educating mothers in vaccinating and re-vaccinating their children. Municipality appointed additional vaccinator in 1927 to assist the permanent vaccinator. Municipality recruited additional vaccinators on temporary basis to assist the vaccinator in discharging his duties. Thus, the staff was enabled to conduct intensive house to house vaccination and achieved the required target.¹¹²

Prosecutions

Though vaccination was made compulsory and its advantages were made known even to the illiterate people through film – shows and other propaganda. Still some persons avoided vaccinating their children on mistaken fear. So house to house census of unprotected cases were taken in all the wards. The unprotected persons were first informed about the utility of re-vaccinations and their legal obligation to get themselves re-vaccinated.

They were also informed of the consequences of the default. Municipality threatened to launch prosecutions if anyone refused to undergo vaccinations. Even school teachers made very positive contribution in achieving hundred per

cent vaccination. Not only people of Chittoor but also people from nearby rural areas visited the office of the vaccinator to get themselves vaccinated. But, no prosecutions were recorded from 1917 to 1970.¹¹³

Control of Food Adulteration

One of the factors responsible for the ill health of its citizens was the adulteration of food stuffs and drinks by unscrupulous traders. So, in 1918, the Government of Madras passed the Prevention of Adulteration of Food Act. Chittoor Municipality enforced the provisions of the above Act since the Act was made. Sanitary staff of Chittoor Municipality was instructed to inspect hotels, sweet, meat shops and other centers of food-stuff.¹¹⁴

Rotten fruits, adulterated ghee and food-stuffs were seized by the Municipal sanitary staff and destroyed. Steps were taken to prevent the sale of food articles exposed to dust and flies direct carriers of diseases. This Act, the Municipalities were required to send samples of food-stuffs to the public Analyst for analysis and report. The quota of samples fixed for the Chittoor Municipality was four for a month. This Act was repealed and a comprehensive Act was passed in 1954. Under this Act., Municipality designated four Sanitary Inspectors as Food Inspectors. The details regarding their operation were as follows.¹¹⁵

1.	No. of samples drawn	--	40
2.	No. certified to be adulterated	--	11
3.	No. of food slightly adulterated	--	Nil
4.	No. of Genuine samples	--	26
5.	No. of Samples for which result were not received	--	3
6.	No. of persons prosecuted	--	11

Note: Out of 40 samples, 26 were found genuine and 11 were found to be adulterated and three were ignored by the public Analyst.

For, the above three samples were not sent with proper care. Secretary issued memos against the staff and let off with warnings only. An amount of Rs.321-96/- paid to the Government Analyst towards the analyst charges and an amount of Rs.1305-40 was realized by way of nagostinal fines during 1968-69.¹¹⁶

Other Public Health Activities

Stray Dogs, Pigs and Monkeys

Stray dogs, pigs and monkeys proved to be health hazard to citizens. To avoid the nuisance of dogs and pigs, which were found straying within the municipal limits, the council took steps to destroy them. In 1927, the council recommended that killing of dogs by clubbing as the best method available.¹¹⁷ 800 stray dogs were killed during 1968-69. The council recommended that the dogs were to be killed by giving injection of chlorinate by the Veterinary Assistant Surgeon. An amount of Rs.825/- was spent on the killing of the dogs during the year.¹¹⁸ The Municipality took steps to keep pigs outside the town and the pig-herds were strictly warned by the Municipality not to let their pigs inside the town. As the destruction of Monkeys tended the religious sentiments of Hindus, the stray monkeys in the town were caught and released in the Palamaner forests.¹¹⁹

Propaganda on Public Health

To create awareness of health among the public, especially slum-dwellers, the public health staff of the Municipality carried on propaganda every year by various methods like lantern lectures, open-air meetings, cinema shows, dramas. baby shows etc.,

Health staff, with the assistance of senior citizens of the town, gave lectures and demonstrations in Chittoor town. They also conducted Baby-shows and presented gifts to well-nutrition and well maintained babies.¹²⁰

The Public Health Staff conducted propaganda work on the following occasions-celebration of World Health Day, Children's Day, Family planning Day, Compost Week etc.,¹²¹

Selection Grade Sanitary Inspector and Sanitary Inspectors conducted meetings in schools and appraised the school children regarding the danger of keeping the surroundings of schools unhygienic and the risk of outbreak of epidemic diseases like cholera due to the insanitation. Health Assistants visited slum areas and enlightened the public regarding the importance of clean drinking water and keeping surroundings clean. Slides and trailers were exhibited in cinema theatres. Lectures were given by the Public Health Staff to educate public on preventive measures to be adopted against outbreak of communicable diseases.¹²²

Public Health Staff

It was surprising to note that till 1969, there is no post of Municipal Health Officer to Chittoor Municipality, but, the public Health Branch was under the direct control of the Municipal Secretary who was assisted by Special Grade Sanitary Inspector. The post of Special Grade Sanitary Inspector (SGSI) was sanctioned in 1964. The post had been in existence since 1.4.1964.¹²³ The Public Health Staff consists of the following personnel.

1.	S.G.S.I	---	1
2.	Sanitary Inspectors	---	4
3.	Public Health Mistress	---	12
4.	Conserved lorry drivers	---	3
5	Lorry cleaners	---	3
6.	Sanitary workers (Sweepers, Scavengers, Lorry Mazdoors and Malaria Mazdoors)	---	206
7.	Vaccination and Health Assistants	---	3
8.	Statistical clerk	---	1

The Secretary looked after the Public Health establishment.¹²⁴

From the above account, it is clear that the Municipality in spite of its paucity of funds tried its best to maintain the public Health of the town efficiently. Maternity and child centres played a vital role in fulfilling the health needs of the public. The Municipal Council took firm action to deal with epidemics like cholera, plague, small-pox etc. and took precautionary measures to prevent their spread by carrying-on inoculations and vaccinations on a mass scale. The Municipality did not hesitate to launch prosecutions against those who adulterated food and other eatables. On the whole, the Municipality was successful during the period of the study to keep the public health of the town at satisfactory level.

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